Rolling Knolls Superfund Site Supplemental Information to Respond to April 29, 2022, Letter from Representative Mikie Sherill

The Rolling Knolls Superfund site was added to the National Priorities List (NPL) in 2003. The listing process evaluates the potential for a release of hazardous substances, pollutants, or contaminants that pose a threat to human health or the environment; it does not quantify the magnitude of risk. The potential for elevated risk is determined by a variety of means, including comparison of concentrations of contaminants to generic screening criteria; through this process, EPA determined that the site qualified for inclusion on the NPL and required a full evaluation of the risks it poses. The remedial investigation/feasibility study (RI/FS) process contemplated by the regulations in the National Contingency Plan (NCP) was then initiated. The following briefly describes the key components of this process:

> **Remedial Investigation** – The primary goals of a RI are to define the physical characteristics of a site, the nature and extent of contamination at the site, the sources of contamination at the site and the fate and transport of the contamination that is present (i.e., if it will move or change form over time). The information collected during the RI is used to evaluate the risks to human health and the environment posed by a site, as well as to develop alternatives to remediate the site.
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> EPA, as lead agency for the site, initiated the RI for the Rolling Knolls site in 2005. The work included sampling of soil, sediment, surface water, groundwater, and air. Based on the RI, EPA, in consultation with New Jersey Department of Environmental Protection (NJDEP) as support agency, determined that approximately 140 acres of the site are impacted by landfilled waste, 105 acres of which are on private property and approximately 35 acres of which are on the Great Swamp National Wildlife Refuge, which is owned by the United States on behalf of the Department of the Interior (DOI) and FWS[1]. Various contaminants of potential concern were detected throughout the landfilled area, as well as on an additional surface debris area of approximately 30 acres. The primary contaminant groups detected included polycyclic aromatic hydrocarbons, pesticides, polychlorinated biphenyls (PCBs) and metals. Most of this contamination was found in soil; impacts to groundwater, surface water and sediment were all found to be relatively minimal (no impacts to air were detected). Overall, a preliminary review of the data reported by FWS for its portion of the site is generally consistent with the findings of the RI. We will review this data in greater detail once the FWS data can be overlain with that collected in the RI.
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> For groundwater specifically, the water table at this site is very shallow (approximately 10 feet below ground) and the site is underlain by a thick clay layer which reduces vertical migration of contamination. Groundwater generally flows into the landfill from the north and radially away from the center of the landfill. While some areas of elevated concentrations in groundwater were found, these were generally co-located with

[1] Note that DOI/FWS took ownership of this portion of the landfill after it was already being used as such and allowed landfilling of waste to continue. As such, they are Potentially Responsible Parties (PRPs) for the site in addition to the three private PRPs (the performing PRPs) that have been conducting the RI/FS under a 2005 Administrative Order on Consent between them and EPA, with EPA oversight.

hazardous waste present at or below the water table; no plumes of contamination were found. Please note, however, that the performing PRPs did recently complete some additional sampling at the site and found elevated concentrations of PFAS. While we are still reviewing the data, it does appear that this contamination may be more widespread in groundwater than other contaminants of potential concern, and some adjustments to the path forward may be required. Again, a preliminary review indicates that this information is consistent with that reported by the FWS for its portion of the site.

Risk Assessments – The data collected during the RI is used to assess the risks posed by contamination at a site to human health and the environment. If unacceptable risks, as defined by federal regulation in the NCP, and EPA guidance, are identified, then EPA has a basis to take action under Superfund to address the elevated risks. In other words, if unacceptable risk is found, the EPA Superfund Program will work to remediate the site.

The Human Health Risk Assessment (HHRA) for Rolling Knolls was completed in 2014 and updated in July 2018 with toxicity information that had been updated to reflect the state of the science. The assessment assumes that people are accessing both the privately and publicly held portions of the site 84 days per year for passive recreational purposes like bird watching or hiking. This means that the HHRA evaluates the risk an individual would be exposed to, based on that person using the site once every 4 to 5 days throughout the calendar year. Because much of the site is privately held, the scenario is called trespassing in the risk assessment for the private portion. However, the exposure assumptions for a trespasser are identical to those of a recreational user of the site, and FWS has previously agreed that 84 days per year is appropriate. Based on this exposure, the HHRA identified unacceptable risks and, therefore, the EPA Superfund Program has a basis to take action at the site.

A Screening Level Ecological Risk Assessment was completed for the site in 2013. Based on the results of this screening assessment, EPA determined that a full Baseline Ecological Risk Assessment (BERA) would be needed. Additional analyses were conducted to support the BERA, including additional sampling of soil, surface water, sediment and tissue (small mammals, earthworms, etc.), toxicity testing was conducted on amphipods and midges, and food chain exposure modeling and habitat assessments were conducted. The BERA also found unacceptable risks associated with exposure to site contamination, which further supports the finding that EPA should take action to address the risks at the site.

While many contaminants were found at the site, the ones leading to unacceptable risk include primarily PCBs and metals (including lead and mercury). Note that the aforementioned PFAS data will not change the outcome of the risk assessments (i.e., that action is warranted).

Feasibility Study – Through the feasibility study process, alternatives to address the unacceptable risks at a site are developed and evaluated. The FS typically looks at a variety of alternatives to address the risks and then evaluates them both individually and in comparison to each other. The NCP identifies nine criteria that must be used to

evaluate various remedial alternatives. The first two criteria – protectiveness of human health and the environment and compliance with applicable, or relevant and appropriate requirements (ARARs) of federal and state laws – generally must be met for an alternative to be considered for selection. The remaining criteria include implementability, short- and long-term effectiveness, cost, and state and community acceptance.

Based on the evaluation process described in the NCP and EPA guidance documents, EPA determines which alternative to recommend to remediate a site and issues a proposed remedial action plan (PRAP) which provides an overview of the site and the proposed alternative, including a summary of the rationale for EPA's recommendation for a preferred remedy. Issuance of the PRAP opens a mandatory 30-day minimum public comment period during which all interested parties are encouraged to submit comments (verbal and/or written) on the proposed plan. The administrative record file for the site, containing the information that EPA has considered in making the decision about its preferred approach, including the RI, FS and risk assessment reports, is also available for public review during this period.

For Rolling Knolls, an initial draft of the FS report was submitted by the performing PRPs to EPA for review in December 2017. EPA submitted significant comments on this draft and the performing PRPs submitted a revised draft in May 2018, which was updated in July and August 2018. EPA submitted additional significant comments on the revised draft and the performing PRPs submitted the most recent draft in March 2021. EPA has compiled comments on the March 2021 draft FS report but we have not yet provided them to the performing PRPs because of a number of unresolved matters, largely related to the future use of the site, that are still being discussed with various interested parties, including DOI/FWS and the Community Advisory Group (CAG). EPA has not yet issued a PRAP for this site.

In June 2018, EPA held a public availability session in Chatham Township to provide an informal update to the community on the findings of the RI and risk assessments and some preliminary thoughts on how to address the unacceptable risks (i.e., how to clean up the site). The general concepts presented included partial capping and/or excavation of soils with elevated concentrations at the site as well as full capping of the entire landfilled area (both privately and publicly held). Shortly after this availability session, the community mobilized to form a CAG to better understand the site and the proposed alternatives. EPA fully supports the creation of CAGs and has provided funding to the CAG to hire both a facilitator and a technical advisor. Starting in September 2018, EPA gave the first of what was intended to be a series of informative presentations on the Superfund process and the results for Rolling Knolls. Each of these presentations is available at www.epa.gov/superfund/rolling-knolls, under the "Site Documents and Data" tab.

Through questions and answers during these presentations, and during several other meetings and discussions, EPA has come to understand the concerns of the community and various stakeholders, including Sally Rubin, Chair of the Rolling Knolls CAG and

the Great Swamp Watershed Association. EPA has worked closely with NJDEP, the support agency for the site, and has also actively engaged with DOI/FWS, in its role as both a PRP and a trustee, throughout the Superfund process. Both organizations have reviewed all draft deliverables and their comments have been incorporated into the comments that EPA has given to the performing PRPs to address, to the extent considered appropriate by EPA.

As mentioned above, EPA has not yet issued a PRAP for the site and, once we do, a mandatory public comment period will begin. During this period all members of the public will have the opportunity to submit their comments and concerns formally into the record. EPA will hold a public meeting during this period, a transcript of which becomes part of the official site record, and extensions to the 30-day comment period may be requested. Once the comment period ends, EPA will incorporate all comments received, and our responses thereto, into a responsiveness summary and, only then, will EPA select an alternative to remediate the site in a document called a Record of Decision (ROD). The feasibility study itself does not become final until the last two of the nine criteria – state and community acceptance – are fully incorporated into the remedy evaluation process.

Post-ROD – Once EPA has made the final remedy selection in a ROD, we move onto the remedial design (RD) phase. While the RI/FS phase does take a long time to complete, as it is meant to provide a comprehensive understanding of the entire site, it is very often the case that significantly more data must be collected during the RD phase to fully design the remedy. If EPA has identified viable PRPs for a site, consistent with EPA policy, we will seek to enter into negotiations with the PRPs for performance of the RD and remedial action (RA). Successful negotiations could result in an administrative settlement agreement for the RD, or a judicial consent decree for the RD and RA.

For Rolling Knolls, regardless of what alternative is ultimately selected to address the site, significantly more data will be needed to define the limits of the areas that need to be addressed, and the final extent of any cap that is put in place may either shrink or expand based on this more dense sampling.

On April 29, 2022, Representative Mikie Sherill sent a letter to EPA and FWS requesting the following actions:

1) EPA: overlay detailed mapping of the recent FWS sampling results onto the previous sampling done by EPA.
2) EPA and FWS: cooperate to combine the EPA and FWS datasets.
3) EPA: assess the technical feasibility of updating the human exposure model to more realistically and accurately account for typical human exposure from regular passive recreational use of the site, including:
   a) provide the Community Advisory Group and my office a written explanation of the current model for human exposure, which was previously characterized as "trespasser" use and was based on school vacation days and seasonal temperature variation,

b) determine the availability of actual visitation data from the non-Superfund portions of the Refuge regularly used by the public to more accurately model human exposure,
c) if such data is available, assess the technical feasibility of updating the human exposure model with that data, and
d) if including such data is technically infeasible or unavailable, provide a written explanation to the Community Advisory Group and my office.

4) EPA: recalculate the ecological and human health risk assessments based on the combined FWS/EPA dataset and the modified human use model.
5) EPA: compare the feasibility of Alternative 5 with Alternative 6, recently proposed by FWS, accounting for the recalculated ecological and human health risk assessments.
6) EPA: voluntarily provide the public with opportunity to provide written and oral comment on EPA's recalculated risk assessment and EPA's evaluation of Alternative 6.

The following information is in response to those requests:

Actions 1 and 2:

EPA and FWS are working cooperatively to overlay the recent sampling points collected by FWS onto a figure showing the EPA RI/FS related sampling points, so that we can compare the sampling data sets. FWS recently provided their sampling locations to EPA and we are working with them to obtain the actual data in a format that is usable by EPA. Once the data are received, we will work cooperatively to develop a way to display the EPA RI/FS and FWS data together.

Action 3:

The human exposure model developed for the site assumes that people are accessing both the privately and publicly held portions of the site 84 days per year for passive recreational purposes like bird watching or hiking. Because much of the site is privately held, the scenario is called "trespassing" in the risk assessment for the private portion. However, the exposure assumptions for a trespasser and a recreational user of the site are identical; that is, 84 days per year is the number of days used to assess the exposure on both the private portion of the site and the Refuge (public portion). The differing terminology (trespasser versus recreator) for the same exposure turns on the legal status of the person entering the property. The owner of the private portion of the site maintains a gate at the entrance to the property and does not allow visitors. Therefore, anyone using the private portion of the site without the express consent of the owner is, by definition, a trespasser.

The part of the Refuge that is located on the site is currently, due to vegetation, virtually impossible to reach directly from the rest of the Refuge, nor is it easy to reach from the private portion of the site. Therefore, the visitation patterns for people going to the accessible parts of the Refuge may not accurately reflect the current or reasonably anticipated use of the portion of the site that is part of the Refuge. Further, Superfund risk assessments evaluate risk to individuals. EPA will work with FWS to determine if visitation data from the Refuge reflects how many times a particular individual visits a particular portion of the more than 7,000-acre Refuge or if it reflects the aggregate numbers of people visiting overall. Should such information on an individual user exist for a particular portion of the Refuge, especially the area located on or

in close proximity to the site, EPA will evaluate it to determine if any modification of the human health risk assessment is needed.

Action 4:

The HHRA is used to determine if EPA needs to take an action to address risks at a Superfund site. Based on the HHRA for the site, EPA did identify unacceptable risks to human health, so there is a need to take action at this site. Therefore, because the current HHRA already gave EPA the basis for this threshold decision, amending the HHRA with the combined dataset will not change the outcome. Similar to the HHRA, the BERA gave EPA the basis to determine that there is a need to conduct an action to address unacceptable risks to the environment. The combined dataset will not change this outcome for either HHRA or BERA. It is possible that investigation of recently detected PFAS compounds may result in the preparation of a limited addendum to the HHRA; however, a need to take action at this site has already been determined as previously noted.

EPA will determine if the HHRA needs to be reassessed based on a review of the visitation data provided by FWS. Further, if EPA learned new information via its discussions with the owner of the privately held portion of the site, DOI/FWS, and/or Chatham Township calling into doubt our understanding regarding the reasonably anticipated future use of the site, we would take that into account in evaluating the risk posed by exposure to site contaminants. To date, that has not occurred.

FWS opted to collect data 'at risk' without EPA approval of the QAPP or field oversight. EPA would not use data collected in this way for the suggested purpose from any PRP, including other federal agencies. EPA informed FWS of this in writing prior to the start of the data collection effort, and also let FWS know that the data could prove useful during the remedial design phase to help refine the exact extent of contamination that needs to be addressed by the selected remedy. This remains the case, and the data FWS has collected will help refine the limits of the area(s) that need to be addressed as part of whatever remedy is ultimately selected. However, contaminants identified in the FWS dataset were consistent with those identified in the RI and used in the development of the HHRA/BERA and would not therefore change the fact that there is a need to take an action to address unacceptable risks to human health and the environment.

Action 5:

EPA is still reviewing the new alternative proposed by FWS, which FWS calls Alternative 6. Based on an initial review, the primary difference between the Alternative 5 (which is included in the draft FS under development) and FWS Alternative 6 is that Alternative 5 treats the entire landfilled area as one unit, regardless of whether it is on the privately or publicly held portion of the site, whereas the FWS alternative treats the Refuge portion of the site differently.

Specifically, Alternative 5 as described in the draft FS includes capping of the entire landfilled area – 105 acres on the private portion of the site and 35 acres on the FWS portion – for a total of 140 acres. FWS Alternative 6 includes, instead, removing all waste/debris from the FWS portion

of the site, consolidating it on the private portion, and then placing a 105-acre cap over the entire private portion of the landfill[2].

EPA will continue to engage with FWS to better understand on what basis it thinks a different remedy is required on its portion of the site than on the private portion. EPA's current view, based on the FS and the record developed to date, is that the risks posed by either the privately or publicly held portions of the site are the same, and therefore the risk assessments do not provide a basis for EPA to select a remedy on one portion of the site that differs from the remedy on another portion. Note that one potential option would be for FWS to enter into a Federal Facility Agreement with EPA to select a remedy for its portion of the site and then implement it. We have recently begun discussing this option with DOI/FWS.

Alternative 6 would not address the community's concerns regarding future use of the site and opening up the site, including privately held land, for greater passive recreational use. Under the FWS Alternative 6, the private portion would still be capped, restrictions would be placed on the property to protect the cap, and the environmental liability concerns would remain. However, as EPA noted in its December 1, 2021 letter to Chatham Township, there may be opportunities to implement appropriate future use projects at the site outside of the remedy selection process. In other words, if in the future a new use is proposed for the site property that could be implemented without affecting the integrity or protectiveness of the remedy, such a use likely could be accommodated, though EPA would not require it as part of the remedy. These opportunities would not differ through the selection of Alternative 5 or Alternative 6.

Action 6:

As is noted above, once EPA releases the PRAP there will be ample time for verbal and written public comment, which must be taken into account as part of the remedy selection process. In addition, EPA is always willing to engage with the CAG to discuss the site and, if requested, would happily return to providing regular updates on the site to the CAG and answering any questions they may have.

[2] Alternative 6 also includes a slurry wall to divert groundwater around the private portion of the landfill. If a slurry wall is determined to be necessary, it is a feature that could readily be added to Alternative 5 and, as such, EPA does not consider it a fundamental difference between the two alternatives at this point in the process.